

## RAW SEQUENCE LISTING

DATE: 10/17/2001

PATENT APPLICATION: US/09/931,732A

TIME: 15:21:11

Input Set : N:\Crf3\10032001\I931732.raw

Output Set: N:\CRF3\10172001\I931732A.raw

1 <110> APPLICANT: Brown, Bob D.  
 2 Riley, Timothy A.  
 3 <120> TITLE OF INVENTION: ANTISENSE OLIGONUCLEOTIDES COMPRISING  
 4 UNIVERSAL AND/OR DEGENERATE BASES  
 5 <130> FILE REFERENCE: OASBIO.001C1  
 6 <140> CURRENT APPLICATION NUMBER: US/09/931,732A  
 7 <141> CURRENT FILING DATE: 2001-08-16  
 8 <150> PRIOR APPLICATION NUMBER: PCT/US00/09293  
 9 <151> PRIOR FILING DATE: 2000-04-07  
 10 <150> PRIOR APPLICATION NUMBER: US 60/128,377  
 11 <151> PRIOR FILING DATE: 1999-04-08  
 12 <160> NUMBER OF SEQ ID NOS: 30  
 13 <170> SOFTWARE: FastSEQ for Windows Version 4.0  
 15 <210> SEQ ID NO: 1  
 16 <211> LENGTH: 18  
 17 <212> TYPE: DNA  
 18 <213> ORGANISM: Artificial Sequence  
 19 <220> FEATURE:  
 20 <223> OTHER INFORMATION: Synthetic oligonucleotide primers  
 21 <221> NAME/KEY: misc\_feature  
 22 <222> LOCATION: 1-6, 13-18  
 23 <223> OTHER INFORMATION: n = Natural or non-naturally occurring base capable  
 24 of specific recognition of an RNA target base  
 25 including, but not limited to, a, c, g, t, u,  
 26 propynyl C, propynyl U, diaminopurine, 5-MeC,  
 W--> 27 7-deaza A and 7-deaza G ) (223) response for a  
 28 <221> NAME/KEY: misc\_feature MAXIMUM 4  
 29 <222> LOCATION: 7-12 lines  
 30 <223> OTHER INFORMATION: b = Universal or degenerate base, invalid  
 31 <400> SEQUENCE: 1  
 W--> 32 nnnnnnnbbbb bnnnnnnn Per sequence rules, <sup>18</sup>  
 34 <210> SEQ ID NO: 2 "b" can only be g, c, t, or u  
 35 <211> LENGTH: 18  
 36 <212> TYPE: DNA  
 37 <213> ORGANISM: Artificial Sequence  
 38 <220> FEATURE:  
 39 <223> OTHER INFORMATION: Synthetic oligonucleotide primers  
 40 <221> NAME/KEY: misc\_feature  
 41 <222> LOCATION: 1-6 13-18  
 42 <223> OTHER INFORMATION: n = Natural or non-naturally occurring base capable  
 43 of specific recognition of an RNA target base  
 44 including, but not limited to, a, c, g, t, u,  
 45 propynyl C, propynyl U, diaminopurine, 5-MeC,  
 W--> 46 7-deaza A and 7-deaza G . 4 lines MAXIMUM  
 47 <221> NAME/KEY: misc\_feature  
 48 <222> LOCATION: 7-12  
 49 <223> OTHER INFORMATION: b = Universal or degenerate base . 2d line as above.

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50 <400> SEQUENCE: 2 18  
W--> 51 nnnnnnnbbbb bbnnnnnn  
53 <210> SEQ ID NO: 3  
54 <211> LENGTH: 18  
55 <212> TYPE: DNA  
56 <213> ORGANISM: Artificial Sequence  
57 <220> FEATURE:  
58 <223> OTHER INFORMATION: Synthetic oligonucleotide primers  
59 <221> NAME/KEY: misc\_feature  
60 <222> LOCATION: 1-6, 13-18  
61 <223> OTHER INFORMATION: Natural or non-naturally occurring base capable of  
62 specific recognition of an RNA target base  
63 including, but not limited to, a, c, g, t, u,  
64 propynyl C, propynyl U, diaminopurine, 5-MeC,  
W--> 65 7-deaza A and 7-deaza G  
66 <221> NAME/KEY: misc\_feature  
67 <222> LOCATION: 7-12  
68 <223> OTHER INFORMATION: b = (universal or degenerate base)  
69 <400> SEQUENCE: 3 18  
W--> 70 nnnnnnnbbbb bbnnnnnn  
72 <210> SEQ ID NO: 4  
73 <211> LENGTH: 18  
74 <212> TYPE: DNA  
75 <213> ORGANISM: Artificial Sequence  
76 <220> FEATURE:  
77 <223> OTHER INFORMATION: Synthetic oligonucleotide primers  
78 <221> NAME/KEY: misc\_feature  
79 <222> LOCATION: 1-6, 13-18  
80 <223> OTHER INFORMATION: n = Natural or non-naturally occurring base capable  
81 of specific recognition of an RNA target base  
82 including, but not limited to, a, c, g, t, u,  
83 propynyl C, propynyl U, diaminopurine, 5-MeC,  
W--> 84 7-deaza A and 7-deaza G  
85 <221> NAME/KEY: misc\_feature  
86 <222> LOCATION: 7-12  
87 <223> OTHER INFORMATION: b = (Universal or degenerate base)  
88 <400> SEQUENCE: 4 18  
W--> 89 nnnnnnnbbbb bbnnnnnn  
91 <210> SEQ ID NO: 5  
92 <211> LENGTH: 18  
93 <212> TYPE: DNA  
94 <213> ORGANISM: Artificial Sequence  
95 <220> FEATURE:  
96 <223> OTHER INFORMATION: Synthetic oligonucleotide primers  
97 <221> NAME/KEY: misc\_feature  
98 <222> LOCATION: 1-3, 5-6, 9, 11, 13, 15-16, 18  
99 <223> OTHER INFORMATION: n = Natural or non-naturally occurring base capable  
100 of specific recognition of an RNA target base  
101 including, but not limited to, a, c, g, t, u,

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102 propynyl C, ~~propynyl~~ U, diaminopurine, 5-MeC,  
W--> 103 7-deaza A and 7-deaza G  
104 <221> NAME/KEY: misc\_feature  
105 <222> LOCATION: 4, 7-8, 10, 12, 14, 17  
106 <223> OTHER INFORMATION: b = Universal or degenerate base  
107 <400> SEQUENCE: 5  
108 nnnbnnbbnb nbnbnnbn 18  
110 <210> SEQ ID NO: 6  
111 <211> LENGTH: 18  
112 <212> TYPE: DNA  
113 <213> ORGANISM: Artificial Sequence  
114 <220> FEATURE:  
115 <223> OTHER INFORMATION: Synthetic oligonucleotide primers  
116 <221> NAME/KEY: misc\_feature  
117 <222> LOCATION: 1-3, 5-6, 9, 11, 13, 15-16, 18  
118 <223> OTHER INFORMATION: n = Natural or non-naturally occurring base capable  
119 of specific recognition of an RNA target base  
120 including, but not limited to, a, c, g, t, u,  
121 propynyl C, ~~propynyl~~ U, diaminopurine, 5-MeC,  
W--> 122 7-deaza A and 7-deaza G  
123 <221> NAME/KEY: misc\_feature  
124 <222> LOCATION: 4, 7-8, 10, 12, 14, 17  
125 <223> OTHER INFORMATION: b = Universal or degenerate base  
126 <400> SEQUENCE: 6  
127 nnnbnnbbnb nbnbnnbn 18  
129 <210> SEQ ID NO: 7  
130 <211> LENGTH: 18  
131 <212> TYPE: DNA  
132 <213> ORGANISM: Artificial Sequence  
133 <220> FEATURE:  
134 <223> OTHER INFORMATION: Synthetic oligonucleotide primers  
135 <221> NAME/KEY: misc\_feature  
136 <222> LOCATION: 1-3, 5-6, 9, 11, 13, 15-16, 18  
137 <223> OTHER INFORMATION: n = Natural or non-naturally occurring base capable  
138 of specific recognition of an RNA target base  
139 including, but not limited to, a, c, g, t, u,  
140 propynyl C, ~~propynyl~~ U, diaminopurine, 5-MeC,  
W--> 141 7-deaza A and 7-deaza G  
142 <221> NAME/KEY: misc\_feature  
143 <222> LOCATION: 4, 7-8, 10, 12, 14, 17  
144 <223> OTHER INFORMATION: b = Universal or degenerate base  
145 <400> SEQUENCE: 7  
146 nnnbnnbbnb nbnbnnbn 18  
148 <210> SEQ ID NO: 8  
149 <211> LENGTH: 18  
150 <212> TYPE: DNA  
151 <213> ORGANISM: Artificial Sequence  
152 <220> FEATURE:  
153 <223> OTHER INFORMATION: Synthetic oligonucleotide primers

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Input Set : N:\Crf3\10032001\I931732.raw

Output Set: N:\CRF3\10172001\I931732A.raw

154 <221> NAME/KEY: misc\_feature  
155 <222> LOCATION: 1-3, 5-6, 9, 11, 13, 15-16, 18  
156 <223> OTHER INFORMATION: n = Natural or non-naturally occurring base capable  
157 of specific recognition of an RNA target base  
158 including, but not limited to, a, c, g, t, u,  
159 propynyl C, propynyl U, diaminopurine, 5-MeC,  
W--> 160 7-deaza A and 7-deaza G  
161 <221> NAME/KEY: misc\_feature  
162 <222> LOCATION: 4, 7-8, 10, 12, 14, 17  
163 <223> OTHER INFORMATION: b = Universal or degenerate base  
164 <400> SEQUENCE: 8  
18  
W--> 165 nnnbnnbbnb nbnbnbn  
167 <210> SEQ ID NO: 9  
168 <211> LENGTH: 18  
169 <212> TYPE: DNA  
170 <213> ORGANISM: Artificial Sequence  
171 <220> FEATURE:  
172 <223> OTHER INFORMATION: Synthetic oligonucleotide primers  
173 <221> NAME/KEY: misc\_feature  
174 <222> LOCATION: 1-3, 5-6, 9, 11, 13, 15-16, 18  
175 <223> OTHER INFORMATION: n = Natural or non-naturally occurring base capable  
176 of specific recognition of an RNA target base  
177 including, but not limited to, a, c, g, t, u,  
178 propynyl C, propynyl U, diaminopurine, 5-MeC,  
W--> 179 7-deaza A and 7-deaza G  
180 <221> NAME/KEY: misc\_feature  
181 <222> LOCATION: 4, 7-8, 10, 12, 14, 17  
182 <223> OTHER INFORMATION: b = Universal or degenerate base  
183 <400> SEQUENCE: 9  
18  
W--> 184 nnnbnnbbnb nbnbnbn  
186 <210> SEQ ID NO: 10  
187 <211> LENGTH: 18  
188 <212> TYPE: DNA  
189 <213> ORGANISM: Artificial Sequence  
190 <220> FEATURE:  
191 <223> OTHER INFORMATION: Synthetic oligonucleotide primers  
192 <221> NAME/KEY: misc\_feature  
193 <222> LOCATION: 1-3, 5-6, 9, 11, 13, 15-16, 18  
194 <223> OTHER INFORMATION: n = Natural or non-naturally occurring base capable  
195 of specific recognition of an RNA target base  
196 including, but not limited to, a, c, g, t, u,  
197 propynyl C, propynyl U, diaminopurine, 5-MeC,  
W--> 198 7-deaza A and 7-deaza G  
199 <221> NAME/KEY: misc\_feature  
200 <222> LOCATION: 4, 7-8, 10, 12, 14, 17  
201 <223> OTHER INFORMATION: b = Universal or degenerate base  
202 <400> SEQUENCE: 10  
18  
W--> 203 nnnbnnbbnb nbnbnbn  
205 <210> SEQ ID NO: 11

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/931,732A

DATE: 10/17/2001  
TIME: 15:21:11

Input Set : N:\Crif3\10032001\I931732.raw  
Output Set: N:\CRF3\10172001\I931732A.raw

206 <211> LENGTH: 18  
207 <212> TYPE: DNA  
208 <213> ORGANISM: Artificial Sequence  
209 <220> FEATURE:  
210 <223> OTHER INFORMATION: Synthetic oligonucleotide primers  
211 <221> NAME/KEY: misc\_feature  
212 <222> LOCATION: 1-3, 5-6, 9, 11, 13, 15-16, 18  
213 <223> OTHER INFORMATION: n = Natural or non-naturally occurring base capable  
214 of specific recognition of an RNA target base  
215 including, but not limited to, a, c, g, t, u,  
216 propynyl C, propynyl U, diaminopurine, 5-MeC,  
W--> 217 7-deaza A and 7-deaza G  
218 <221> NAME/KEY: misc\_feature  
219 <222> LOCATION: 4, 7-8, 10, 12, 14, 17  
220 <223> OTHER INFORMATION: b = Universal or degenerate base  
221 <400> SEQUENCE: 11  
W--> 222 nnnbnnbbnb nbnbnbn  
224 <210> SEQ ID NO: 12  
225 <211> LENGTH: 22  
226 <212> TYPE: DNA  
227 <213> ORGANISM: Artificial Sequence  
228 <220> FEATURE:  
229 <223> OTHER INFORMATION: Synthetic oligonucleotide primers  
230 <400> SEQUENCE: 12  
231 cgaaattaaa tcgactcact at 22  
233 <210> SEQ ID NO: 13  
234 <211> LENGTH: 80  
235 <212> TYPE: DNA  
236 <213> ORGANISM: Artificial Sequence  
237 <220> FEATURE:  
238 <223> OTHER INFORMATION: Synthetic oligonucleotide primers  
239 <400> SEQUENCE: 13  
240 caggcccagc agcagcagca gcagcagcat ggtgggcgaa ttgcgattc gaagccctat 60  
241 agtgagtcgt attaatttcg 80  
243 <210> SEQ ID NO: 14  
244 <211> LENGTH: 22  
245 <212> TYPE: DNA  
246 <213> ORGANISM: Artificial Sequence  
247 <220> FEATURE:  
248 <223> OTHER INFORMATION: Synthetic oligonucleotide primers  
249 <400> SEQUENCE: 14  
250 ggttctctc ctcaactggg at 22  
252 <210> SEQ ID NO: 15  
253 <211> LENGTH: 76  
254 <212> TYPE: DNA  
255 <213> ORGANISM: Artificial Sequence  
256 <220> FEATURE:  
257 <223> OTHER INFORMATION: Synthetic oligonucleotide primers  
258 <400> SEQUENCE: 15

*Please correct  
this error in  
subsequent  
sequences.*

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/931,732A

DATE: 10/17/2001

TIME: 15:21:12

Input Set : N:\Crf3\10032001\I931732.raw

Output Set: N:\CRF3\10172001\I931732A.raw

L:27 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
 L:32 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
 L:46 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
 L:51 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
 L:65 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
 L:70 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
 L:84 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
 L:89 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
 L:103 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
 L:108 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5  
 L:122 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
 L:127 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
 L:141 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
 L:146 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
 L:160 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
 L:165 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
 L:179 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
 L:184 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9  
 L:198 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
 L:203 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10  
 L:217 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
 L:222 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11  
 L:373 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26  
 L:416 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30